04/21/2017

MONTANA LABORATORY SENTINEL

Updates from the MT Laboratory Services Bureau

800-821-7284

www.lab.hhs.mt.gov

Antibiotic Use for Shigella Infections

CDC has released a Health Advisory announcing new recommendations for diagnosing and managing patients infected with Shigella strains with possible reduced susceptibility to ciprofloxacin.

Infections with emerging strains of Shigella may be harder to treat with ciprofloxacin, an antibiotic often used when treatment is needed, due to emerging quinolone resistance. Antimicrobial susceptibility tests may not accurately predict whether Shigella infections with certain resistance genes can be treated effectively with ciprofloxacin. Using an antibiotic that isn't effective can contribute to the growing problem of multidrug-resistant Shigella and increase the chance of others getting sick from this highly contagious bacteria.

CDC recommends that doctors take these steps when treating patients with shigellosis.

- Test for antibiotic resistance in all shigellosis cases to determine which antibiotics the bacteria may be susceptible to
- Do not use antibiotics unless necessary for Shigella infections
- Avoid using ciprofloxacin when the minimum inhibitory concentration (MIC) is ≥ 0.12 ug/ml, even if the laboratory report identifies the isolate as susceptible.

Please remember to refer all Shigella isolates to MTPHL for surveillance.

For more information and additional recommendations for clinicians, laboratories, and public health officials, read the full CDC Health Advisory: https://emergency.cdc.gov/han/han00401.asp

Requisitions and Billing

MTLSB has a new billing system, so you will notice a change in the appearance of your bill in June.

Additionally, we have redesigned the PHL requisitions (the blue forms). The new forms will have black print, so ink color will not be a big issue such as with the current forms. We still have a few of the old forms left, but you can preview a sample of the new form in our current lab manual, found on our web page: http://dphhs.mt.gov/publichealth/LaboratoryServices/PublicHealthLabTesting

Total –Fix Single Vial System

In May, the Montana Public Health Laboratory will start providing the Total-Fix® single vial stool collection kit for the transport of fecal specimens for parasitic testing. This single vial system is a mercury, formalin, and PVA free FIX®ative that preserves parasite morphology for ova and parasite examination, as well as other parasitic testing, and will replace the current Protocol™ two-vial parasitology system.

Total-Fix® collection kits will be provided to laboratories upon request for collection and submission of specimens to MTPHL.

For more information, please call 800-821-7284.

CAP Laboratory Preparedness Exercise

The 2017 College of American Pathologists Laboratory Preparedness Exercise (CAP-LPX) Set A was shipped out on April 10th, and participants in Montana are completing testing and submitting rule-out specimens to the Public Health Laboratory for evaluation of packaging and shipping. It is wonderful to see how many labs do participate in the exercise. Currently, there are were 11 participating labs—Benefis, Billings Clinic, Bozeman Deaconess, Community Medical, Frances Mahon Deaconess, Holy Rosary, Kalispell Regional, St. Patrick's Hospital, St. Peter's, St. Vincent's Healthcare, and Sidney Health Care. Thanks to everyone. Please contact MTPHL at 800-821-7284 if you are interested in taking advantage of this opportunity. The cost of the survey is reimbursable.

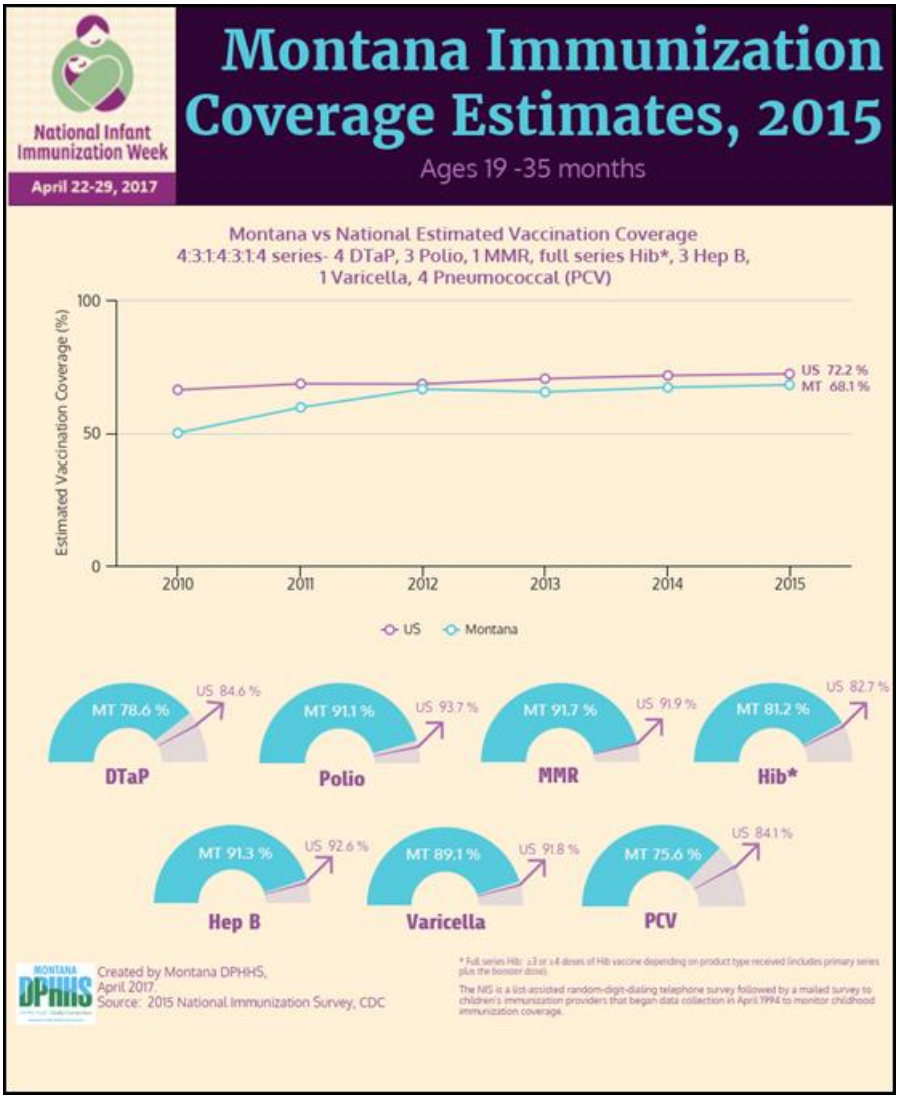
Referral of Specimens to MTPHL

Just a reminder that certain conditions are reportable and must be confirmed by MTPHL. Your local public health department has a list of these conditions, which can also be found here: http://dphhs.mt.gov/Portals/85/publichealth/documents/CDEpi/DiseaseReporting/DiseaseListJune2013.pdf. Anything with an (i) must be sent to MTPHL for confirmation. This includes syphilis, HIV, certain vaccine-preventable conditions, and certain bacterium. Montana's rules for reportable conditions can be found here: http://www.mtrules.org/gateway/RuleNo.asp?RN=37.114.203.

Montana Communicable Disease Weekly Update

Release date: 4/21/2017

Infographic of the Week:



To download and print a high resolution pdf version of MTDPHHS infographics, or to view the archive of weekly infographics, please visit the [CDEpi infographics page](#).

DISEASE INFORMATION

Summary – MMWR Week 15: Ending 4/15/17 Preliminary disease reports received by DPHHS for the reporting period April 9–15, 2017 included the following:

- **General Communicable Diseases:** Elevated blood lead (0), Legionellosis (1)
- **Enteric Diseases:** Campylobacteriosis (4), Cryptosporidiosis (2), Giardiasis (1), Salmonellosis (2), Shiga toxin producing *E. coli* [STEC] (1)
- **Vaccine Preventable Diseases:** *Haemophilus* influenzae (1, nontypeable), Influenza hospitalization[†](9), *Streptococcus* pneumoniae (2), Varicella [chickenpox] (4)
- **STD/HIV:** Chlamydia (73), Gonorrhea (17), Syphilis (3), HIV[*](0)
- **Hepatitis:** Hepatitis B, chronic (1), Hepatitis C, acute (1), Hepatitis C, chronic (18)
- **Zoonotic diseases:** (0)
- **Animal Rabies:** (0)

[*] *A case is included if a new confirmatory test or report was received by DPHHS. Cases include both persons who were newly diagnosed and persons newly reported in Montana who may have been diagnosed in another state or country.*

[†] *Influenza hospitalizations are presented by the MMWR week that the case was reported into MIDIS. For additional information on influenza, please refer to the weekly Montana Influenza Summary.*

[‡] *Case is acquired outside of Montana*

NOTE: The attached report has multiple pages reflecting the following information: (1) cases for the past reporting week; (2) communicable diseases YTD; and (3) clusters and outbreaks.

HOT TOPICS

Syphilis (Update): *The number of primary and secondary (P&S) syphilis cases in 2017 have risen to an average of one per week*. 2017 primary and secondary syphilis case numbers are currently averaging four times higher than 2016. This compares to a little over one P&S case per month in 2016.

As of April 20, 18 cases of primary and secondary syphilis have been reported. While the disease has been noted in several counties, the majority of the more recent cases reside in the greater Yellowstone area. The STD program and local partners have been conducting syphilis messaging to both providers and persons at risk that encourage testing. Thus finding new cases is not necessarily bad news, as the disease must first be identified and subsequently treated to interrupt the transmission cycle.

On a related note, local health departments with syphilis cases and/or contacts may find themselves short of the recommended treatment of Bicillin L-A as the result of a national supply issue. We recommend that LHDs monitor Bicillin L-A availability and make prior arrangements to purchase the medication from other entities, such as a local hospital, should the need arise.

If Bicillin L-A is unavailable, non-pregnant persons can be treated with doxycycline 100mg orally twice daily for 14 days. Please provide these patients with support throughout the treatment period to ensure adherence to the prescribed regimen.

From the CDC 2015 STD Treatment Guidelines, two important points to remember:

- Do NOT substitute Bicillin C-R for Bicillin L-A.
- Parental PCN G (Billicin L-A) is the only therapy with documented efficacy for syphilis during pregnancy.

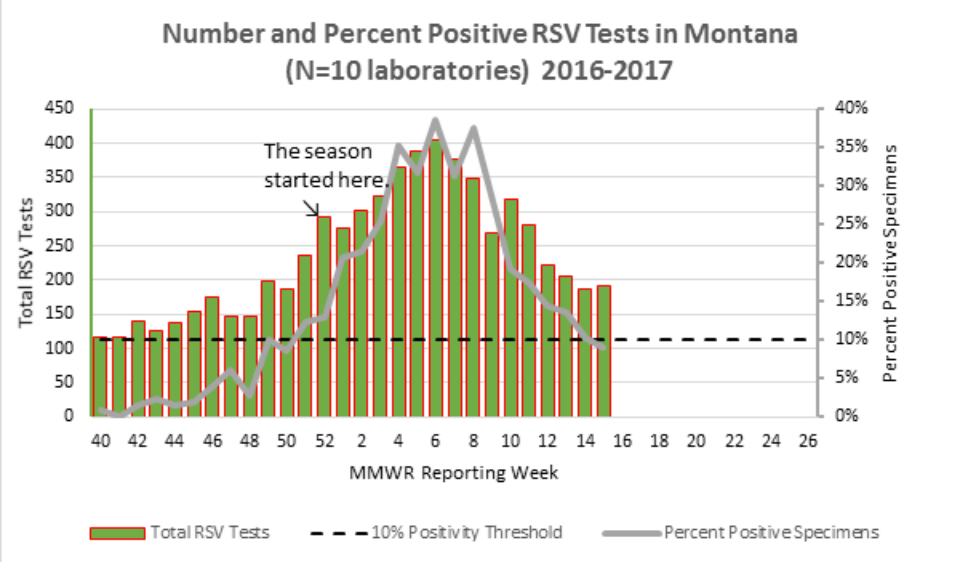
For more information about syphilis, visit our website: http://dphhs.mt.gov/publichealth/hivstd/stdprevention.aspx

Cryptosporidium: We have seen an increase in cases this spring with many ill persons reporting exposure to ill cattle. Reports are slightly above average, but not above the maximum we have seen per month. Like many enteric illnesses, reports of cryptosporidiosis will continue to increase during the spring and summer months.

Salmonella: There has also been an increase in salmonellosis reported recently. Nearly twice as many cases have occurred in March this year compared to the average. Some cases of *Salmonella* Typhimurium have been linked to ill cattle in Park County. A cluster of *Salmonella* Braenderup in the Missoula, Ravalli region is currently still under investigation. Multiple individual *Salmonella* cases in Flathead, Missoula and Gallatin counties are connected to different multi-state cluster and outbreak investigations, potentially linked to out of country travel and live poultry among others, and are still being investigated.

Influenza: Although influenza activity is declining in Montana, please remember to continue to report your influenza case counts and hospitalizations into MIDIS through the end of the season (June 1). We use this data to produce the weekly Montana Influenza Summary, which is updated every Friday and can be found here: Montana Influenza Summary. You can also view the latest Weekly U.S Influenza Surveillance Report from CDC here: http://www.cdc.gov/flu/weekly/

RSV: The decline in cases and percent positivity continued, while the number of people tested remained steady, compared with last week. Given that only 17 RSV cases were found this week, the season may be drawing to an end. This When last weeks (compete) data was recalculated, the positivity rate fell to 10.2% while this weeks was 8.9%. If next weeks positivity rate is below 10% this would mark the earliest end of the RSV season in the last 4 years.



As a reminder, it takes two weeks below the 10% positive threshold to declare the RSV season over. We are still above the 10% threshold.

Zika: No significant updates for Zika have occurred. Please visit our Zika webpage for any information you might need. http://dphhs.mt.gov/publichealth/cdepi/diseases/ZikaVirus

INFORMATION/ANNOUNCEMENTS

Reconciliation reports (clarification): Now that MIDIS has been upgraded to include STD reporting, your quarterly reconciliation reports are getting an update as well. The next reconciliation report for cases entered into MIDIS between January 1 and March 31 will be sent out to you the first week of May. This updated report will now include STD cases as well as STD specific variables. While you are eagerly awaiting your report, please review and close out your cases as needed. Remember, this quarter's report will be considered a baseline because of all of the changes. We acknowledge this timeline is later than you are accustomed to seeing. However, it is important to us to make certain this report is fully functioning, accurate, and useful to you.

The fields that are being tracked for completeness per your PHEP EPI deliverables are:

- Date of birth
- Onset Date (does not include STDs or chronic Hepatitis)
- Diagnosis Date
- Race

- Ethnicity
- Zip code
- Hospitalization status
- Control measures implemented
- Refer for HIV test (STD only)
- Pregnancy status (STD only)
- Interview (STD only)
- Treatment (STD only)

The following fields are used for timeliness calculations, so be sure they are as complete as possible:

- Diagnosis Date
- Date reported to county
- Notification creation date

Q&A CORNER

Q: ***Why make outbreaks in congregate settings of all conditions listed in the CCDM reportable?***

A: DPHHS incorporated the CCDM and felt that if it was important enough to be listed in that publication it may be important enough to bring to the attention of local and state health departments when an outbreak in a congregate setting occurs. Many of the conditions in the CCDM are already formally reportable, either specifically or under the "Any unusual incident of unexplained illness or death in a human or animal with potential human health implications" listing in the rule. Conditions such as scabies, lice, conjunctivitis are not as exotic.

We definitely are only interested in brief details when an outbreak is recognized. We are developing some additional guidance (school example attached) that local health agencies can share with these settings to help them recognize when a true outbreak may be occurring and provide basic information in response.

Bonus Q: ***Does DPHHS have recommended interventions for a local health department to implement when an outbreak is reported?***

Bonus A: The response to a report of an outbreak will vary depending on the setting and the severity of the condition. In most cases, the recommendations of the CCDM or other adopted resource would be implemented. However, the rule provides a great deal of flexibility with how this is done.

Simply passing along recommendations for the facility and or affected persons would be appropriate in many cases. For example, a school reporting an outbreak of head lice could be provided current resources related to the management of the event and the school and/or parents would generally carry out the appropriate control measures. The direct support of a local health department will vary on the available resources, of the school and health department. In general, we do not see many instances where a physical presence would be required. In most situations, you would simply be doing what you do presently when you hear about these outbreaks.

DPHHS is working on additional guidance related to responses in addition to a very SHORT method (interim form attached) of reporting basic information related to selected outbreaks. Entry of basic information into MIDIS will be implemented this summer as upgrades are completed.

Q: *What do I do with a positive Rocky Mountain Spotted Fever (RMSF) result?*

A: The diagnostic lab test for RMSF (rickettsiosis) is reported as the lowest titer at which IgG antibodies to RMSF are detected and below the reference titer. The tricky thing about RMSF is that it takes between 7 – 10 days after illness onset for the body to create detectible IgG antibodies. So, it's vital to compare of the date of blood draw and date of symptom onset. If the blood sample was drawn too close to the date of symptom onset, IgG may not be present or, if so, at a very low titer. If you suspect that the sample was drawn too early, suggest that the patient get another test about 10 days after symptoms onset. Interestingly, a single 'positive' titer with compatible symptoms is enough for a probable case. It takes a second blood draw, taken 4-6 weeks later, to detect a 4 fold change (decrease) in IgG titer for a confirmed case. Because this second test is for surveillance purposes, the Epidemiology section will cover the cost for this test if it is arranged ahead of time. Please call Christine at 444-0273 for consultation about RMSF cases.

Communicable Disease Epidemiology Suggestion Box:

To submit a question or comment to the Communicable Disease Epidemiology Section, please click on the suggestion box to access our online form.

24/7 AVAILABILITY

The Communicable Disease Epidemiology (CDEpi) Section is available 24 hours a day, 7 days a week, 365 days a year, to assist local health jurisdictions. Local providers should call, including after normal business hours, their local health jurisdiction. The CDEpi 24-hour line is available as a back-up to the local health jurisdiction's 24-hour line. If you need CDEpi assistance, please call 406.444.0273. Phone calls to this number outside of normal business hours will be answered by the answering service. The answering service will immediately forward the message to CDEpi, and we will respond as quickly as possible.

Local health jurisdictions, please ensure that your local providers have your 24/7/365 contact information. And please inform CDEpi or the Public Health Emergency Preparedness Program of updates to your required 24/7 contact information.

This update is produced by the Montana Communicable Disease Epidemiology Section. Questions regarding its content should be directed to 406.444.0273 (24/7/365). For more information: *http://dphhs.mt.gov/publichealth/cdepi*